



## Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-442



### **AIM-9X Block II Sidewinder (AIM-9X Blk II)**

As of FY 2017 President's Budget

Defense Acquisition Management  
Information Retrieval  
(DAMIR)

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## Common Acronyms and Abbreviations for MDAP Programs

Acq O&M - Acquisition-Related Operations and Maintenance  
ACAT - Acquisition Category  
ADM - Acquisition Decision Memorandum  
APB - Acquisition Program Baseline  
APPN - Appropriation  
APUC - Average Procurement Unit Cost  
\$B - Billions of Dollars  
BA - Budget Authority/Budget Activity  
Blk - Block  
BY - Base Year  
CAPE - Cost Assessment and Program Evaluation  
CARD - Cost Analysis Requirements Description  
CDD - Capability Development Document  
CLIN - Contract Line Item Number  
CPD - Capability Production Document  
CY - Calendar Year  
DAB - Defense Acquisition Board  
DAE - Defense Acquisition Executive  
DAMIR - Defense Acquisition Management Information Retrieval  
DoD - Department of Defense  
DSN - Defense Switched Network  
EMD - Engineering and Manufacturing Development  
EVM - Earned Value Management  
FOC - Full Operational Capability  
FMS - Foreign Military Sales  
FRP - Full Rate Production  
FY - Fiscal Year  
FYDP - Future Years Defense Program  
ICE - Independent Cost Estimate  
IOC - Initial Operational Capability  
Inc - Increment  
JROC - Joint Requirements Oversight Council  
\$K - Thousands of Dollars  
KPP - Key Performance Parameter  
LRIP - Low Rate Initial Production  
\$M - Millions of Dollars  
MDA - Milestone Decision Authority  
MDAP - Major Defense Acquisition Program  
MILCON - Military Construction  
N/A - Not Applicable  
O&M - Operations and Maintenance  
ORD - Operational Requirements Document  
OSD - Office of the Secretary of Defense  
O&S - Operating and Support  
PAUC - Program Acquisition Unit Cost

PB - President's Budget  
PE - Program Element  
PEO - Program Executive Officer  
PM - Program Manager  
POE - Program Office Estimate  
RDT&E - Research, Development, Test, and Evaluation  
SAR - Selected Acquisition Report  
SCP - Service Cost Position  
TBD - To Be Determined  
TY - Then Year  
UCR - Unit Cost Reporting  
U.S. - United States  
USD(AT&L) - Under Secretary of Defense (Acquisition, Technology and Logistics)

## Program Information

**Program Name**

AIM-9X Block II Sidewinder (AIM-9X Blk II)

**DoD Component**

Navy

**Joint Participants**

Air Force

## Responsible Office

Capt James Stoneman  
47123 Buse Road  
Unit IPT, Suite 451  
Patuxent River, MD 20670-1547

[jim.stoneman@navy.mil](mailto:jim.stoneman@navy.mil)

**Phone:** 301-757-7311  
**Fax:** 301-757-6435  
**DSN Phone:** 757-7311  
**DSN Fax:** 757-6435  
**Date Assigned:** October 9, 2014

## References

**SAR Baseline (Production Estimate)**

Navy Acquisition Executive (NAE) Approved Acquisition Program Baseline (APB) dated December 23, 2011

**Approved APB**

Navy Acquisition Executive (NAE) Approved Acquisition Program Baseline (APB) dated August 31, 2015

## Mission and Description

The AIM-9X Block II Sidewinder (AIM-9X Blk II) short-range air-to-air missile is a long term evolution of the AIM-9 series of fielded missiles. The missile program provides a launch and leave, air combat munitions that uses passive Infrared (IR) energy for acquisition and tracking of enemy aircraft and complements the Advanced Medium Range Air-to-Air Missile. Air superiority in the short-range air-to-air missile arena is essential and includes first shot, first kill opportunity against enemy employing IR countermeasures. Anti-Tamper features have been incorporated to protect improvements inherent in this design.

## Executive Summary

The AIM-9X Block II missile completed Initial Operational Test and Evaluation (IOT&E) in March 2015 and was found to be operationally effective and suitable. The United States Navy declared IOC in March 2015 and began fielding the AIM-9X Block II missiles later that month. The MDA approved the FRP decision in August 2015 and the program awarded the first full rate production contract in September 2015. The program awarded the System Improvement Program III (SIP III) contract in September 2015 to improve missile performance, address obsolescence and to implement cost reduction initiatives. The United States Air Force fielded the AIM-9X Block II Captive Air Training Missile for training in December 2015 and anticipates IOC in April 2016.

There are no significant software-related issues with this program at this time.

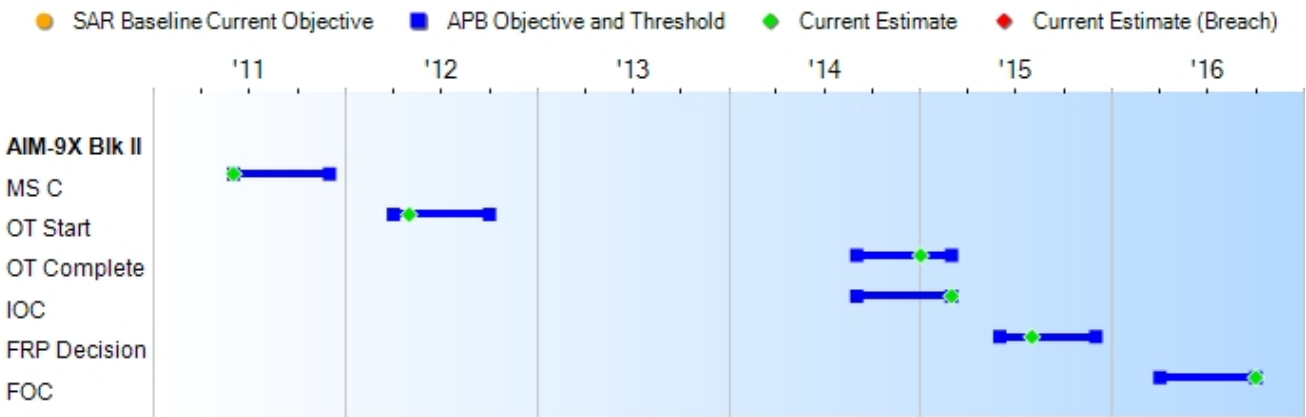
Threshold Breaches

APB Breaches		
Schedule		<input type="checkbox"/>
Performance		<input type="checkbox"/>
Cost	RDT&E	<input type="checkbox"/>
	Procurement	<input type="checkbox"/>
	MILCON	<input type="checkbox"/>
	Acq O&M	<input type="checkbox"/>
O&S Cost		<input type="checkbox"/>
Unit Cost	PAUC	<input type="checkbox"/>
	APUC	<input type="checkbox"/>

Nunn-McCurdy Breaches		
Current UCR Baseline		
	PAUC	None
	APUC	None
Original UCR Baseline		
	PAUC	None
	APUC	None



Schedule



Schedule Events				
Events	SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Current Estimate
MS C	Jun 2011	Jun 2011	Dec 2011	Jun 2011
OT Start	Apr 2012	Apr 2012	Oct 2012	May 2012
OT Complete	Apr 2013	Sep 2014	Mar 2015	Jan 2015
IOC	Sep 2014	Sep 2014	Mar 2015	Mar 2015
FRP Decision	Dec 2013	Jun 2015	Dec 2015	Aug 2015
FOC	Oct 2015	Apr 2016	Oct 2016	Oct 2016

(Ch-1)

(Ch-2)

Change Explanations

- (Ch-1) The FRP Decision current estimate changed from June 2015 to August 2015 to reflect the actual date FRP was approved.
- (Ch-2) The FOC current estimate changed from October 2015 to October 2016 to reflect the updated APB.

Acronyms and Abbreviations

- MS - Milestone
- OT - Operational Test

## Performance

Performance Characteristics				
SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Demonstrated Performance	Current Estimate
AIM-9X Day/Night Capability				
Yes	Yes	Yes	Yes	Yes
AIM-9X Aircraft Interface/Interoperability Missile Weight (lbs.)				
≤ 192	≤ 192	≤ 210	186.2	≤ 192
AIM-9X Aircraft Interface/Interoperability Missile Length (in.)				
≤ 115	≤ 115	≤ 123	119.2	≤ 123
AIM-9X Aircraft Interface/Interoperability Missile Box Size (in.)				
≤ 12.5 X 12.5	≤ 12.5 X 12.5	≤ 12.5 X 12.5	12.5 X 12.5	≤ 12.5 X 12.5
AIM-9X Aircraft Interface/Interoperability Missile Diameter (in.)				
≤ 5	≤ 5	≤ 7	≤ 5	≤ 5
AIM-9X Aircraft Interface/Interoperability Interface				
Mid body umbilical only	Mid body umbilical only	Digital.	Digital	Mid body umbilical only
AIM-9X High Off Boresight Capability Cueing/Verification				
Interface with current/ planned aircraft radar systems and planned HMCS.	Interface with current/ planned aircraft radar systems and planned HMCS.	Interface with current/ planned aircraft radar systems and planned HMCS.	Yes	Interface with current/ planned aircraft radar systems and planned- HMCS
AIM-9X Captive Carry Reliability (MTBCCF) (hr.)				
>.or.=900	>.or.=900	>.or.=500	794.16	>.or.=900
AIM-9X Detect Non-Operational Missile (BIT) All Components (%)				
>.or.=0.80	>.or.=0.80	>.or.=0.60	TBD	>.or.=0.60
AIM-9X Detect Non-Operational Missile (BIT-able Components) (%)				
>.or.=0.95	>.or.=0.95	>.or.=0.90	0.92	>.or.=0.90
AIM-9X Mean Time Between False Alarms (hr.)				
>.or.=25	>.or.=25	<.or.=16	>.or.=18	>.or.=16
AIM-9X BIT Time (sec.)				
≤ 20	≤ 20	≤ 20	≤ 15	≤ 20
EMI Compatibility				
Threshold= Objective	Threshold= Objective	Not incur damage to electrical components while in the electromagnetic	Yes	Threshold= Objective

		environment of an aircraft carried. The AIM-9X Block II missile shall be compatible with representative threshold hose aircraft weapon and sensor load-outs with regard to RFI, EMI, and MIL-STD-1533 or MIL-STD-1760 data bus message throughput constraints.		
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**Ao- AUR**

No less than (.98) after 35,000 flight hours	No less than (.98) after 35,000 flight hours	No less than (.93) after 35,000 flight hours	TBD	No less than (.93) after 35,000 flight hours	(Ch-1)
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**Net Readiness**

The capability, system, and/or service must fully support execution of joint critical operational activities and information exchanges identified in the DoD Enterprise Architecture and solution architectures based on integrated DoDAF content, and must satisfy the technical requirements for transition to Net-Centric military operations to include: 1) Solution architecture products compliant with DoD Enterprise Architecture based on integrated DoDAF content, including specified operationally effective information exchanges. 2) Compliant with Net-Centric Data Strategy and Net-Centric Services Strategy, and the principles and rules identified in the DoD IEA, excepting	The capability, system, and/or service must fully support execution of joint critical operational activities and information exchanges identified in the DoD Enterprise Architecture and solution architectures based on integrated DoDAF content, and must satisfy the technical requirements for transition to Net-Centric military operations to include: 1) Solution architecture products compliant with DoD Enterprise Architecture based on integrated DoDAF content, including specified operationally effective information exchanges. 2) Compliant with Net-Centric Data Strategy and Net-Centric Services Strategy, and the principles and rules identified in the DoD IEA, excepting	The capability, system, and/or service must fully support execution of all operational activities and information exchanges identified in DoD Enterprise Architecture and solution architectures based on integrated DoDAF content, and must satisfy the technical requirements for transition to Net-Centric military operations to include: 1) Solution architecture products compliant with DoD Enterprise Architecture based on integrated DoDAF content, including specified operationally effective information exchanges. 2) Compliant with Net-Centric Data Strategy and Net-Centric Services Strategy, and the principles and rules identified in the DoD IEA , excepting tactical and non-IP communications. 3) Compliant with GIG Technical	TBD	The capability, system, and/or service must fully support execution of joint critical operational activities and information exchanges identified in the DoD Enterprise Architecture and solution architectures based on integrated DoDAF content, and must satisfy the technical requirements for transition to Net-Centric military operations to include: 1) Solution architecture products compliant with DoD Enterprise Architecture based on integrated DoDAF content, including specified operationally effective information exchanges. 2) Compliant with Net-Centric Data Strategy and Net-Centric Services
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tactical and non-IP communica-tions. 3) Compliant with GIG Technical Guidance to include IT Standards identified in the TV-1 and implementation guidance of GIG GESPs necessary to meet all operational requirements specified in the DoD Enterprise Architecture and solution architecture views. 4) Information assurance requirements including availability, integrity, authenticat-ion, confident-iality, and non-repudiation, and issuance of an IATO or ATO by the DAA and 5) Supportabil-ity requirements to include SAASM Spectrum and JTRS requirements	tactical and non-IP communica-tions. 3) Compliant with GIG Technical Guidance to include IT Standards identified in the TV-1 and implementation guidance of GIG GESPs necessary to meet all operational requirements specified in the DoD Enterprise Architecture and solution architecture views. 4) Information assurance requirements including availability, integrity, authenticat-ion, confidential-ity, and non-repudiation, and issuance of an IATO or ATO by the DAA and 5) Supportabil-ity requirements to include SAASM Spectrum and JTRS requirements	Guidance to include IT Standards identified in the TV-1 and implementation guidance of GESPs, necessary to meet all operational requirements specified in the DoD Enterprise Architecture and solution architecture views. 4) Information assurance requirements including availability, integrity, authenticat-ion, confidential-ity, and non-repudiation, and issuance of an IATO or ATO by the DAA and 5) Supportabil-ity requirements to include SAASM, Spectrum and JTRS necessary to meet all operational requirements specified in the DoD Enterprise Architecture and solution architecture views		Strategy, and the principles and rules identified in the DoD IEA, excepting tactical and non-IP communica-tions. 3) Compliant with GIG Technical Guidance to include IT Standards identified in the TV-1 and implementa-tion guidance of GIG GESPs necessary to meet all operational requirements specified in the DoD Enterprise Architecture and solution architecture views. 4) Information assurance requirements including availability, integrity, authentica-tion, confidentiality and non-repudiation, and issuance of an IATO or ATO by the DAA and 5) Support-ability requirements to include SAASM Spectrum and JTRS requirements
<b>Ao- CATM</b>				
No less than (.95) after 100,000 flight hours	No less than (.95) after 100,000 flight hours	No less than (.86) after 100,000 flight hours	TBD	No less than (.95) after 100,000 flight hours
<b>Material Availability (Am)</b>				
Threshold= Objective	Threshold= Objective	No less than (.82)	TBD	Threshold= Objective

Classified Performance information is provided in the classified annex to this submission.

## Requirements Reference

CPD dated May 20, 2011

**Change Explanations**

(Ch-1) The Current Estimate for AIM-9X Detect Non-Operational Missile (BIT) All Components (%) and Ao-AUR changed due to an error in the previous SAR.

(Ch-2) The Current Estimate for AIM-9X Detect Non-Operational Missile (BIT-able Components ) (%) changed from >.or.=0.95 to >.or.=0.92 based on amount of time the missile has been fielded; more data is required to analyze.

(Ch-3) The Current Estimate for AIM-9X Mean Time Between False Alarms (hr.) changed from >.or.=25 to >.or.=16 based on the amount of time the missile has been fielded; more data is required to analyze.

**Notes**

AIM-9X Day/Night Capability demonstrated performance changed from TBD to Yes. AIM-9X High Off Boresight Capability Cueing/Verification demonstrated performance changed from TBD to Yes. AIM-9X BIT Time (sec.) demonstrated performance TBD to  $\leq 20$ . EMI Capability demonstrated performance changed from TBD to Yes. Capabilities were demonstrated during Developmental Test / Operational Test.

AIM-9X Aircraft Interface/Interoperability Missile Weight (lbs) demonstrated performance changed from TBD to 186.2. AIM-9X Aircraft Interface/Interoperability Missile Length (in.) demonstrated performance changed from TBD to 119.2. AIM-9X Aircraft Interface/Interoperability Missile Box Size (in.) demonstrated performance changed from TBD to 12.5 X 12.5. AIM-9X Aircraft Interface/Interoperability Missile Diameter (in.) demonstrated performance changed from TBD to  $\leq 5$ . AIM-9X Aircraft Interface/Interoperability Interface demonstrated performance changed from TBD to Digital. Characteristics were verified during AIM-9X Block II production.

AIM-9X Detect Non-Operational Missile (BIT) All Components (%) current estimated changed from >.or.=0.80 to >.or.=0.60. Ao-AUR current estimated changed from No less than (.98) after 35,000 flight hours to No less than (.93) after 35,000 flight hours.

AIM-9X Detect Non-Operational Missile (BIT-able Components ) (%) demonstrated performance changed from TBD to 0.92 due to capability demonstration to date.

AIM-9X Mean Time Between False Alarms (hr.) demonstrated performance changed from TBD to >.or.=18 due to capability demonstration during Operational Test.

**Acronyms and Abbreviations**

Ao - Operational Availability  
ATO - Authorization To Operate  
AUR - All Up Round  
BIT - Built In Test  
CATM - Captive Air Training Missile  
DAA - Designated Accrediting Authority  
DoDAF - Department of Defense Architecture Framework  
EMI - Electromagnetic Interference  
GESP - GIG Enterprise Service Profile  
GIG - Global Information Grid  
HMCS - Helmet Mounted Cueing System  
hr - hour  
IATO - Interim Authorization to Operate  
IEA - Information Enterprise Architecture  
in - Inches  
IP - Internet Protocol  
IT - Information Technology  
JTRS - Joint Test Requirement System  
lbs - Pounds  
Mid - Middle  
MIL - Military  
MTBCCF - Mean Time Between Captive Carry Failure  
RFI - Radio Frequency Interference  
SAASM - Selective Availability Anti-Spoofing Module  
sec - seconds  
STD - Standard  
TV - Technical View

# Track to Budget

## General Notes

Block III funding (Project Unit 0458) is not included in this Block II SAR.

## RDT&E

Appn	BA	PE	
Navy	1319	07	0207161N
	<b>Project</b>	<b>Name</b>	
	0457	AIM-9X	
Air Force	3600	07	0207161F
	<b>Project</b>	<b>Name</b>	
	674132	AIM-9 Product Improvement	

## Procurement

Appn	BA	PE	
Navy	1507	02	0206138M
	<b>Line Item</b>	<b>Name</b>	
	2209	Sidewinder (Shared)	
	<b>Notes:</b>	USMC funding received as WPN	
Navy	1507	02	0204162N
	<b>Line Item</b>	<b>Name</b>	
	2209	Sidewinder (Shared)	
Navy	1507	06	0204162N
	<b>Line Item</b>	<b>Name</b>	
	6120	Spares and Repair Parts (Shared)	
	<b>Notes:</b>	Initial Spares	
Air Force	3020	04	0207161F
	<b>Line Item</b>	<b>Name</b>	
	000999	Initial Spares/Repair Parts (Shared)	
	<b>Notes:</b>	Initial Spares	
Air Force	3020	02	0207161F
	<b>Line Item</b>	<b>Name</b>	
	M09HAI	Sidewinder (AIM-9X) (Shared)	

# Cost and Funding

## Cost Summary

Total Acquisition Cost						
Appropriation	BY 2011 \$M			BY 2011 \$M	TY \$M	
	SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Current Estimate	SAR Baseline Production Estimate	Current APB Production Objective
RDT&E	168.8	504.9	555.4	537.8	175.7	547.1
Procurement	3798.5	2821.5	3103.7	2960.2	4680.4	3324.4
Flyaway	--	--	--	2862.4	--	--
Recurring	--	--	--	2716.7	--	--
Non Recurring	--	--	--	145.7	--	--
Support	--	--	--	97.8	--	--
Other Support	--	--	--	42.5	--	--
Initial Spares	--	--	--	55.3	--	--
MILCON	0.0	0.0	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0
Total	3967.3	3326.4	N/A	3498.0	4856.1	3871.5

### Current APB Cost Estimate Reference

FRP Joint Component Cost Position dated August 03, 2015

### Confidence Level

Confidence Level of cost estimate for current APB: 50%

The current APB cost estimate provided sufficient resources to execute the program under normal conditions, encountering average levels of technical, schedule and programmatic risk and external interference. It was consistent with average resource expenditures on historical efforts of similar size, scope, and complexity and represents a notional 50% confidence level.

Total Quantity			
Quantity	SAR Baseline Production Estimate	Current APB Production	Current Estimate
RDT&E	0	0	0
Procurement	6000	6000	6000
Total	6000	6000	6000



## Cost and Funding

### Funding Summary

Appropriation Summary									
FY 2017 President's Budget / December 2015 SAR (TY\$ M)									
Appropriation	Prior	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
RDT&E	201.7	114.4	109.2	81.3	48.1	13.7	13.9	0.0	582.3
Procurement	829.1	292.7	206.2	200.5	207.0	213.1	211.2	1357.4	3517.2
MILCON	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2017 Total	1030.8	407.1	315.4	281.8	255.1	226.8	225.1	1357.4	4099.5
PB 2016 Total	1033.0	418.6	432.3	366.8	241.1	211.1	210.2	840.0	3753.1
Delta	-2.2	-11.5	-116.9	-85.0	14.0	15.7	14.9	517.4	346.4

Quantity Summary										
FY 2017 President's Budget / December 2015 SAR (TY\$ M)										
Quantity	Undistributed	Prior	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Development	0	0	0	0	0	0	0	0	0	0
Production	0	1568	733	439	376	373	368	327	1816	6000
PB 2017 Total	0	1568	733	439	376	373	368	327	1816	6000
PB 2016 Total	0	1568	733	722	698	364	363	365	1187	6000
Delta	0	0	0	-283	-322	9	5	-38	629	0

# Cost and Funding

## Annual Funding By Appropriation

Annual Funding							
1319   RDT&E   Research, Development, Test, and Evaluation, Navy							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2004	--	--	--	--	--	--	1.3
2005	--	--	--	--	--	--	3.9
2006	--	--	--	--	--	--	7.7
2007	--	--	--	--	--	--	6.7
2008	--	--	--	--	--	--	0.5
2009	--	--	--	--	--	--	5.4
2010	--	--	--	--	--	--	--
2011	--	--	--	--	--	--	0.9
2012	--	--	--	--	--	--	8.4
2013	--	--	--	--	--	--	17.9
2014	--	--	--	--	--	--	16.5
2015	--	--	--	--	--	--	36.4
2016	--	--	--	--	--	--	71.0
2017	--	--	--	--	--	--	56.3
2018	--	--	--	--	--	--	36.6
2019	--	--	--	--	--	--	33.3
2020	--	--	--	--	--	--	0.3
2021	--	--	--	--	--	--	0.3
Subtotal	--	--	--	--	--	--	303.4

Annual Funding							
1319   RDT&E   Research, Development, Test, and Evaluation, Navy							
Fiscal Year	Quantity	BY 2011 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2004	--	--	--	--	--	--	1.5
2005	--	--	--	--	--	--	4.3
2006	--	--	--	--	--	--	8.3
2007	--	--	--	--	--	--	7.0
2008	--	--	--	--	--	--	0.5
2009	--	--	--	--	--	--	5.5
2010	--	--	--	--	--	--	--
2011	--	--	--	--	--	--	0.9
2012	--	--	--	--	--	--	8.1
2013	--	--	--	--	--	--	17.1
2014	--	--	--	--	--	--	15.5
2015	--	--	--	--	--	--	33.8
2016	--	--	--	--	--	--	65.0
2017	--	--	--	--	--	--	50.6
2018	--	--	--	--	--	--	32.3
2019	--	--	--	--	--	--	28.8
2020	--	--	--	--	--	--	0.3
2021	--	--	--	--	--	--	0.2
Subtotal	--	--	--	--	--	--	279.7

Annual Funding							
3600   RDT&E   Research, Development, Test, and Evaluation, Air Force							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2005	--	--	--	--	--	--	5.1
2006	--	--	--	--	--	--	10.9
2007	--	--	--	--	--	--	3.3
2008	--	--	--	--	--	--	5.5
2009	--	--	--	--	--	--	5.5
2010	--	--	--	--	--	--	3.7
2011	--	--	--	--	--	--	7.0
2012	--	--	--	--	--	--	7.9
2013	--	--	--	--	--	--	6.0
2014	--	--	--	--	--	--	12.4
2015	--	--	--	--	--	--	28.8
2016	--	--	--	--	--	--	43.4
2017	--	--	--	--	--	--	52.9
2018	--	--	--	--	--	--	44.7
2019	--	--	--	--	--	--	14.8
2020	--	--	--	--	--	--	13.4
2021	--	--	--	--	--	--	13.6
Subtotal	--	--	--	--	--	--	278.9

Annual Funding							
3600   RDT&E   Research, Development, Test, and Evaluation, Air Force							
Fiscal Year	Quantity	BY 2011 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2005	--	--	--	--	--	--	5.7
2006	--	--	--	--	--	--	11.8
2007	--	--	--	--	--	--	3.5
2008	--	--	--	--	--	--	5.7
2009	--	--	--	--	--	--	5.6
2010	--	--	--	--	--	--	3.7
2011	--	--	--	--	--	--	6.9
2012	--	--	--	--	--	--	7.7
2013	--	--	--	--	--	--	5.7
2014	--	--	--	--	--	--	11.7
2015	--	--	--	--	--	--	26.9
2016	--	--	--	--	--	--	40.0
2017	--	--	--	--	--	--	47.8
2018	--	--	--	--	--	--	39.7
2019	--	--	--	--	--	--	12.9
2020	--	--	--	--	--	--	11.4
2021	--	--	--	--	--	--	11.4
Subtotal	--	--	--	--	--	--	258.1

Annual Funding							
1507   Procurement   Weapons Procurement, Navy							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2009	--	--	--	0.9	0.9	--	0.9
2010	--	--	--	11.4	11.4	--	11.4
2011	63	46.1	--	3.1	49.2	1.2	50.4
2012	69	39.2	--	7.6	46.8	1.7	48.5
2013	150	60.1	--	3.6	63.7	6.8	70.5
2014	208	86.6	--	5.1	91.7	6.6	98.3
2015	167	64.2	--	2.0	66.2	3.2	69.4
2016	227	81.2	--	7.1	88.3	5.6	93.9
2017	152	68.5	--	0.9	69.4	1.6	71.0
2018	150	75.3	--	2.8	78.1	2.6	80.7
2019	153	75.8	--	1.6	77.4	3.0	80.4
2020	153	79.2	--	1.6	80.8	2.6	83.4
2021	150	85.6	--	2.7	88.3	2.6	90.9
2022	160	88.8	--	1.1	89.9	2.8	92.7
2023	157	90.2	--	1.6	91.8	2.8	94.6
2024	151	90.0	--	3.7	93.7	2.8	96.5
2025	155	93.9	--	1.7	95.6	2.9	98.5
2026	132	119.7	--	2.2	121.9	3.1	125.0
2027	132	141.1	--	4.3	145.4	3.2	148.6
2028	119	151.3	--	2.3	153.6	1.5	155.1
Subtotal	2648	1536.8	--	67.3	1604.1	56.6	1660.7

Annual Funding 1507   Procurement   Weapons Procurement, Navy							
Fiscal Year	Quantity	BY 2011 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2009	--	--	--	0.9	0.9	--	0.9
2010	--	--	--	11.3	11.3	--	11.3
2011	63	44.8	--	3.0	47.8	1.2	49.0
2012	69	37.5	--	7.2	44.7	1.7	46.4
2013	150	56.7	--	3.4	60.1	6.5	66.6
2014	208	80.7	--	4.7	85.4	6.2	91.6
2015	167	58.9	--	1.9	60.8	2.9	63.7
2016	227	73.2	--	6.4	79.6	5.1	84.7
2017	152	60.6	--	0.8	61.4	1.4	62.8
2018	150	65.4	--	2.4	67.8	2.2	70.0
2019	153	64.5	--	1.3	65.8	2.6	68.4
2020	153	66.1	--	1.3	67.4	2.2	69.6
2021	150	70.0	--	2.1	72.1	2.2	74.3
2022	160	71.2	--	0.9	72.1	2.2	74.3
2023	157	70.9	--	1.3	72.2	2.2	74.4
2024	151	69.4	--	2.8	72.2	2.2	74.4
2025	155	71.0	--	1.2	72.2	2.2	74.4
2026	132	88.7	--	1.6	90.3	2.3	92.6
2027	132	102.5	--	3.1	105.6	2.3	107.9
2028	119	107.7	--	1.6	109.3	1.1	110.4
Subtotal	2648	1259.8	--	59.2	1319.0	48.7	1367.7

Annual Funding							
3020   Procurement   Missile Procurement, Air Force							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2009	--	--	--	1.9	1.9	--	1.9
2010	--	--	--	14.2	14.2	--	14.2
2011	106	60.5	--	3.7	64.2	1.4	65.6
2012	127	75.8	--	9.1	84.9	1.7	86.6
2013	150	62.3	--	4.2	66.5	7.3	73.8
2014	225	95.2	--	5.5	100.7	6.1	106.8
2015	303	123.4	--	3.4	126.8	4.0	130.8
2016	506	181.3	--	16.6	197.9	0.9	198.8
2017	287	123.8	--	3.4	127.2	8.0	135.2
2018	226	107.8	--	6.0	113.8	6.0	119.8
2019	220	118.3	--	3.7	122.0	4.6	126.6
2020	215	120.9	--	4.4	125.3	4.4	129.7
2021	177	110.4	--	7.9	118.3	2.0	120.3
2022	199	118.9	--	1.9	120.8	2.0	122.8
2023	198	121.4	--	2.1	123.5	2.1	125.6
2024	192	122.3	--	4.0	126.3	2.1	128.4
2025	188	122.9	--	2.2	125.1	2.2	127.3
2026	33	38.9	--	2.2	41.1	1.2	42.3
Subtotal	3352	1704.1	--	96.4	1800.5	56.0	1856.5



Annual Funding 3020   Procurement   Missile Procurement, Air Force							
Fiscal Year	Quantity	BY 2011 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2009	--	--	--	1.9	1.9	--	1.9
2010	--	--	--	14.2	14.2	--	14.2
2011	106	59.3	--	3.6	62.9	1.4	64.3
2012	127	73.0	--	8.8	81.8	1.6	83.4
2013	150	58.7	--	4.0	62.7	6.8	69.5
2014	225	88.3	--	5.1	93.4	5.7	99.1
2015	303	113.2	--	3.1	116.3	3.7	120.0
2016	506	163.4	--	15.0	178.4	0.8	179.2
2017	287	109.5	--	3.0	112.5	7.1	119.6
2018	226	93.5	--	5.2	98.7	5.2	103.9
2019	220	100.6	--	3.1	103.7	3.9	107.6
2020	215	100.8	--	3.6	104.4	3.7	108.1
2021	177	90.2	--	6.4	96.6	1.7	98.3
2022	199	95.2	--	1.6	96.8	1.6	98.4
2023	198	95.4	--	1.6	97.0	1.7	98.7
2024	192	94.2	--	3.1	97.3	1.6	98.9
2025	188	92.8	--	1.6	94.4	1.7	96.1
2026	33	28.8	--	1.6	30.4	0.9	31.3
Subtotal	3352	1456.9	--	86.5	1543.4	49.1	1592.5

## Low Rate Initial Production

Item	Initial LRIP Decision	Current Total LRIP
<b>Approval Date</b>	6/30/2011	6/5/2014
<b>Approved Quantity</b>	361	1140
<b>Reference</b>	Milestone C ADM	LRIP IV ADM
<b>Start Year</b>	2011	2011
<b>End Year</b>	2012	2014

The Current Total LRIP Quantity is more than 10% of the total production quantity due to the need to maintain the production line.

The Initial LRIP Decision Approved Quantity was authorized for LRIP I and II per the Milestone C ADM dated June 30, 2011.

# Foreign Military Sales

Country	Date of Sale	Quantity	Total Cost \$M	Description
Australia	12/22/2015		12.6	FMS Case AT-P-AYW. 14 Captive Air Training Missiles and a classified quantity of Tactical and Special Air Training Missiles.
Japan	12/11/2015	10	4.5	FMS Case JA-P-ASL. 4 Tactical Missiles and 6 Captive Air Training Missiles
Turkey	12/10/2015	18	7.0	FMS Case TK-P-AHX-A6. 18 Captive Air Training Missiles
South Korea	10/30/2015	72	52.3	FMS Case KS-P-ALE 62 Tactical Missiles and 10 Captive Air Training Missiles
Norway	10/28/2015	120	65.8	FMS Case NO-P-AHV. 90 Tactical Missiles and 30 Captive Air Training Missiles
Taiwan	9/10/2015	80	50.3	FMS Case TQ-D-QBZ. 40 Tactical Missiles and 40 Captive Air Training Missiles
Romania	3/30/2015	18	7.2	FMS Case RO-P-AAA 12 Tactical Missiles and 6 Captive Air Training Missiles
Australia	2/9/2015		54.1	FMS Case AT-P-AZT. 68 Captive Air Training Missiles and a classified quantity of Special Air Training Missiles.
Israel	12/17/2014	10	3.7	FMS Case IS-P-AUH 5 Tactical Missiles and 5 Captive Air Training Missiles
Japan	12/1/2014	9	4.5	FMS Case JA-P-LZB. 9 Tactical Missiles.
South Korea	8/27/2014	78	54.1	FMS Case KS-P-ALC 76 Tactical Missiles and 2 Captive Air Training Missiles
Belgium	1/6/2014	60	24.6	FMS Case BE-P-ACX. 30 Tactical Missiles and 30 Captive Air Training Missiles.
Singapore	12/18/2013	28	9.7	FMS Case SN-P-ADF. 20 Tactical Missiles and 8 Captive Air Training Missiles.
Netherlands	11/1/2013	48	15.4	FMS Case NE-P-AGE. 28 Tactical Missiles and 20 Captive Air Training Missiles.
Turkey	9/3/2013	117	47.0	FMS Case TK-P-AHX-A5. 117 Tactical Missiles.
Oman	3/11/2013	74	20.7	FMS Case MU-P-LAO. 50 Tactical Missiles and 24 Captive Air Training Missiles.
Kuwait	2/28/2013	100	29.1	FMS Case KU-P-ABI. 80 Tactical Missiles and 20 Captive Air Training Missiles.
Malaysia	5/29/2012	28	8.0	FMS Case MF-P-AAD. 20 Tactical Missiles and 8 Captive Air Training Missiles.
Morocco	3/29/2012	32	8.4	FMS Case MO-P-AAK. 20 Tactical Missiles and 12 Captive Air Training Missiles.
Saudi Arabia	12/25/2011	154	85.0	FMS Case SR-D-SAI. 120 Tactical Missiles and 34 Captive Air Training Missiles.
South Korea	12/20/2011	19	9.0	FMS Case KS-P-AKR. 19 Tactical Missiles.

## Notes

All FMS missiles are the AIM-9X-2 Block II configuration and were procured under FMS procedures with waivers for nonrecurring cost and Yockey (USD (AT&L) approval to offer a weapon system under development. Effective August 2015, Yockey approval is no longer required for the AIM-9X Blk II because the missile system is in FRP.

All FMS missile procurements are on missile production contract(s) except for agreements accepted in 2015.

FMS Block II missile shipments have been on hold pending both United States Navy and United States Air Force Block II fielding. FMS Block II missile shipments to international partners are projected to begin in approximately 4th Quarter FY 2016.

## **Nuclear Costs**

None

# Unit Cost

## Unit Cost Report

Item	BY 2011 \$M	BY 2011 \$M	% Change
	Current UCR Baseline (Aug 2015 APB)	Current Estimate (Dec 2015 SAR)	

### Program Acquisition Unit Cost

Cost	3326.4	3498.0	
Quantity	6000	6000	
Unit Cost	0.554	0.583	+5.16

### Average Procurement Unit Cost

Cost	2821.5	2960.2	
Quantity	6000	6000	
Unit Cost	0.470	0.493	+4.84

Item	BY 2011 \$M	BY 2011 \$M	% Change
	Original UCR Baseline (Dec 2011 APB)	Current Estimate (Dec 2015 SAR)	

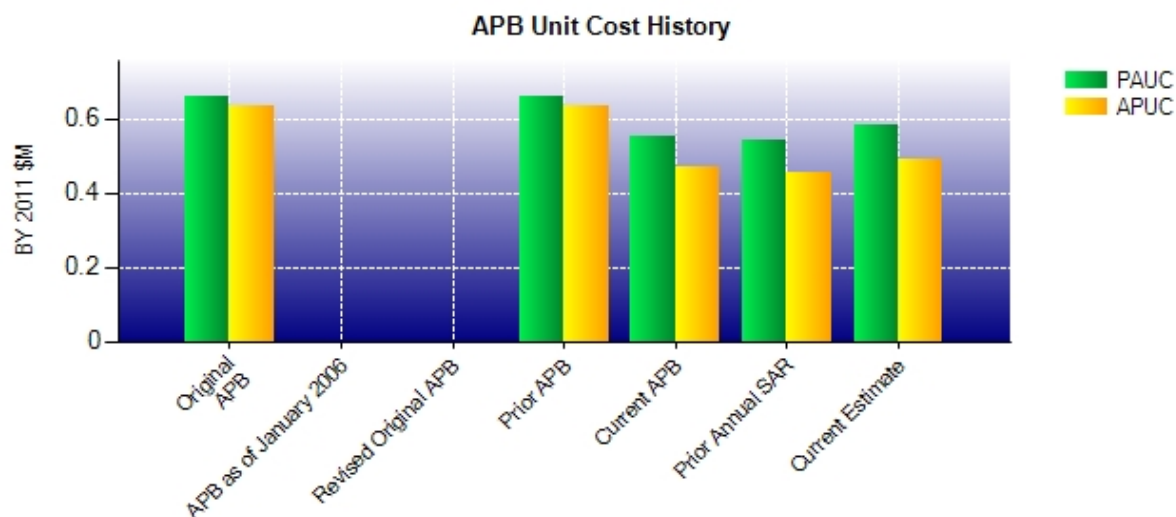
### Program Acquisition Unit Cost

Cost	3967.3	3498.0	
Quantity	6000	6000	
Unit Cost	0.661	0.583	-11.83

### Average Procurement Unit Cost

Cost	3798.5	2960.2	
Quantity	6000	6000	
Unit Cost	0.633	0.493	-22.13

# Unit Cost History



Item	Date	BY 2011 \$M		TY \$M	
		PAUC	APUC	PAUC	APUC
Original APB	Dec 2011	0.661	0.633	0.809	0.780
APB as of January 2006	N/A	N/A	N/A	N/A	N/A
Revised Original APB	N/A	N/A	N/A	N/A	N/A
Prior APB	Dec 2011	0.661	0.633	0.809	0.780
Current APB	Aug 2015	0.554	0.470	0.645	0.554
Prior Annual SAR	Dec 2014	0.541	0.456	0.626	0.533
Current Estimate	Dec 2015	0.583	0.493	0.683	0.586

## SAR Unit Cost History

Current SAR Baseline to Current Estimate (TY \$M)									
Initial PAUC Production Estimate	Changes								PAUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.809	0.017	0.000	-0.128	0.050	-0.048	0.000	-0.017	-0.126	0.683

Current SAR Baseline to Current Estimate (TY \$M)									
Initial APUC Production Estimate	Changes								APUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.780	0.018	0.000	-0.129	-0.001	-0.065	0.000	-0.017	-0.194	0.586

SAR Baseline History				
Item	SAR Planning Estimate	SAR Development Estimate	SAR Production Estimate	Current Estimate
Milestone A	N/A	N/A	N/A	N/A
Milestone B	N/A	N/A	N/A	N/A
Milestone C	N/A	N/A	Jun 2011	Jun 2011
IOC	N/A	N/A	Sep 2014	Mar 2015
Total Cost (TY \$M)	N/A	N/A	4856.1	4099.5
Total Quantity	N/A	N/A	6000	6000
PAUC	N/A	N/A	0.809	0.683

## Cost Variance

Summary TY \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Production Estimate)	175.7	4680.4	--	4856.1
Previous Changes				
Economic	-1.4	+125.7	--	+124.3
Quantity	--	--	--	--
Schedule	--	-823.9	--	-823.9
Engineering	+307.8	-7.8	--	+300.0
Estimating	+70.7	-705.2	--	-634.5
Other	--	--	--	--
Support	--	-68.9	--	-68.9
Subtotal	+377.1	-1480.1	--	-1103.0
Current Changes				
Economic	-2.5	-20.2	--	-22.7
Quantity	--	--	--	--
Schedule	--	+50.5	--	+50.5
Engineering	--	--	--	--
Estimating	+32.0	+316.9	--	+348.9
Other	--	--	--	--
Support	--	-30.3	--	-30.3
Subtotal	+29.5	+316.9	--	+346.4
Total Changes	+406.6	-1163.2	--	-756.6
CE - Cost Variance	582.3	3517.2	--	4099.5
CE - Cost & Funding	582.3	3517.2	--	4099.5



Summary BY 2011 \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Production Estimate)	168.8	3798.5	--	3967.3
Previous Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	-407.6	--	-407.6
Engineering	+274.3	-7.4	--	+266.9
Estimating	+66.5	-604.2	--	-537.7
Other	--	--	--	--
Support	--	-44.1	--	-44.1
Subtotal	+340.8	-1063.3	--	-722.5
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	+28.2	+247.8	--	+276.0
Other	--	--	--	--
Support	--	-22.8	--	-22.8
Subtotal	+28.2	+225.0	--	+253.2
Total Changes	+369.0	-838.3	--	-469.3
CE - Cost Variance	537.8	2960.2	--	3498.0
CE - Cost & Funding	537.8	2960.2	--	3498.0

Previous Estimate: December 2014

RDT&E	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-2.5
Adjustment for current and prior escalation. (Estimating)	+1.1	+1.1
Decrease due to FY 2017 PB reduction. (Navy) (Estimating)	-9.4	-10.7
Decrease due to Targeted Balanced Budget Act (TBBA). (Navy) (Estimating)	-2.0	-2.3
Revised estimate for software improvements and redesign of component hardware due to obsolescence. (Air Force) (Estimating)	+38.5	+43.9
RDT&E Subtotal	+28.2	+29.5

Procurement	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-20.2
Stretch-out of procurement buy profile of 149 missiles from FY 2017 through FY 2021 to FYDP, FY 2022 to FY 2028 (Navy). (Schedule)	0.0	+15.9
Additional schedule variance due to economies of scale associated with stretch-out of procurement buy profile. (Navy) (Estimating)	+11.5	+16.3
Stretch-out of procurement buy profile of 490 missiles from FY 2017 through FY 2022 to FYDP, FY 2023 to FY 2026 (Air Force). (Schedule)	0.0	+34.6
Additional schedule variance due to the stretch-out of the procurement buy profile. (Air Force) (Estimating)	+11.0	+12.8
Updated hardware estimates based on FRP Milestone data. (Navy) (Estimating)	+79.4	+106.6
Updated hardware estimates based on the FRP Milestone data. (Air Force) (Estimating)	+93.9	+116.3
Revised estimate for systems engineering and program management as a result of FRP Milestone data. (Navy) (Estimating)	+31.6	+40.5
Revised estimate for systems engineering and program management as a result of FRP Milestone data. (Air Force) (Estimating)	+16.4	+19.9
Adjustment for current and prior escalation. (Estimating)	+4.0	+4.5
Adjustment for current and prior escalation. (Support)	+0.7	+0.5
Decrease in Other Support due to reduction in requirements of Special Air Training Missiles (Navy). (Support)	-14.9	-18.5
Decrease in Other Support due to reduction in requirements of Special Air Training Missiles (Air Force). (Support)	-5.7	-7.5
Decrease in Initial Spares due to change in procurement profile (Navy). (Support)	-9.6	-12.3
Increase in Initial Spares due to change in procurement profile (Air Force). (Support)	+6.7	+7.5
Procurement Subtotal	+225.0	+316.9

## Contracts

### Contract Identification

**Appropriation:** RDT&E  
**Contract Name:** AIM-9X Block II System Improvement Program  
**Contractor:** Raytheon Missiles Systems  
**Contractor Location:** 1151 E Hermans Rd  
 Tucson, AZ 85756  
**Contract Number:** N00019-11-C-0026  
**Contract Type:** Cost Plus Fixed Fee (CPFF)  
**Award Date:** March 31, 2011  
**Definitization Date:** March 31, 2011

### Contract Price

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
19.9	N/A	1	90.7	N/A	1	90.7	90.7

### Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to additional effort for Active Optical Target Detector obsolescence, system development and integration, algorithm development, F-22 integration, as well as replacement of Aircraft Interface and Cryo-Cooler Circuit card assemblies which are being driven by obsolescence.

### Cost and Schedule Variance Explanations

Cost and Schedule Variance reporting is not required on this (CPFF) contract.

### General Contract Variance Explanation

Earned Value Management (EVM) was only required on one CLIN in this contract. The CLIN Period of Performance ended in September 2014.

### Notes

This contract is more than 90% complete; therefore, this is the final report for this contract.

**Contract Identification**

**Appropriation:** Procurement  
**Contract Name:** AIM-9X Block II Production  
**Contractor:** Raytheon Missile Systems  
**Contractor Location:** 1151 E Hermans Road  
Tucson, AZ 85756-9367  
**Contract Number:** N00019-11-C-0001  
**Contract Type:** Firm Fixed Price (FFP), Fixed Price Incentive(Firm Target) (FPIF)  
**Award Date:** September 29, 2011  
**Definitization Date:** September 29, 2011

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
61.9	61.9	120	540.9	108.4	1070	540.9	540.9

**Target Price Change Explanation**

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to procurement of additional FY 2011 assets, the awards of Lot 12 and Lot 13 Contracts, addition of Programmable Advanced System Interface Simulator Test Set, increased Spares requirement, Inertial Measurement Unit investigation to include retrofits and upgrades, and AIM-9X Block II sectionalization support equipment in support of the United States Navy (USN) and several FMS customers. Additional Spares were authorized in December 2014 for USN, United States Air Force, and FMS.

**Cost and Schedule Variance Explanations**

Cost and Schedule Variance reporting is not required on this (FFP/FPIF) contract.

**General Contract Variance Explanation**

Cost and schedule variances are not reported for this contract because an earned value management waiver was granted by the Office of the Assistant Secretary of the Navy (Research, Development and Acquisition) Deputy Assistant of the Navy (Acquisition and Procurement) on January 23, 2012 due to utilization of other methods (i.e., a Cost and Software Data Reporting requirement) to monitor contract performance. In addition, the contract includes FAR Clause 52.216-16 which requires quarterly limitation on payments reporting by the contractor after the first delivery.

**Notes**

The Contract Ceiling Price applies to only the FPIF CLINs of the contract.

This contract includes FMS and Other Customer Funds.

**Contract Identification**

**Appropriation:** Procurement  
**Contract Name:** AIM-9X Obsolescence, S/W Development & Platform Integration  
**Contractor:** Raytheon Company  
**Contractor Location:** 1151 East Hermans Road  
Tucson, AZ 85756  
**Contract Number:** N00019-12-C-2002/1  
**Contract Type:** Cost Plus Fixed Fee (CPFF)  
**Award Date:** May 11, 2012  
**Definitization Date:** May 11, 2012

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
1.4	N/A	N/A	55.6	N/A	N/A	55.7	55.7

**Target Price Change Explanation**

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the addition of the following efforts: Engineering Investigations and Missile Software Correction for F-16 Wing Twist, Flight Test Support, Production Software Support, Deficiency Analysis, Engineering Analysis of subsystem hardware, Engineering Change Proposal Preparation, AIM-9X EA-18G HERO and E3 Testing, Air Force Seek Eagle Phase II, AIM-9X Block II Prototype Development, Integration and Flight Test and associated contract fees.

The reduction in Current Contract Price, since the last SAR, is the result of a mathematical error in breaking out CLIN 0113 into a separate Effort (2) per the EVM reporting guidance. CLIN 0113 was completed in September 2015.

**Cost and Schedule Variance Explanations**

Cost and Schedule Variance reporting is not required on this (CPFF) contract.

**General Contract Variance Explanation**

EVM requirements for this Effort (1) applied only to CLINs 103, 105 and 107. The Period of Performance for these CLINs has expired and EVM is no longer reported.

# **Contract Identification**

**Appropriation:** Procurement  
**Contract Name:** AIM-9X Block II Lot 14 Production  
**Contractor:** Raytheon Company  
**Contractor Location:** 1151 East Hermans Road  
Tucson, AZ 85756  
**Contract Number:** N00019-14-C-0053  
**Contract Type:** Fixed Price Incentive(Firm Target) (FPIF)  
**Award Date:** June 26, 2014  
**Definitization Date:** June 26, 2014

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
223.1	229.7	677	227.6	234.5	689	227.6	227.6

# **Target Price Change Explanation**

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the procurement of additional AIM-9X Block II Guidance Unit covers in support of the United States Navy, United States Air Force (USAF) and FMS (Netherlands, Singapore, Turkey, and Morocco), as well as the procurement of additional AIM-9X Block II missiles and containers for USAF.

# **Cost and Schedule Variance Explanations**

Cost and Schedule Variance reporting is not required on this (FPIF) contract.

# **General Contract Variance Explanation**

Cost and schedule variances are not reported for this contract because an earned value management waiver was granted by the Office of the Assistant Secretary of the Navy (Research, Development and Acquisition) Deputy Assistant of the Navy (Acquisition and Procurement) on June 20, 2014 due to the utilization of other methods (i.e., a Cost and Software Data Reporting requirement) to monitor contract performance. In addition, the contract includes Federal Acquisition Regulation Clause 52.216-16 which requires quarterly limitation on payments reporting by the contractor after the first delivery.

# Contract Identification

**Appropriation:** RDT&E  
**Contract Name:** AIM-9X Obsolescence, S/W Development & Platform Integration (CLIN 0113)  
**Contractor:** Raytheon Missile Systems  
**Contractor Location:** 1151 East Hermans Road  
Tucson, AZ 85756  
**Contract Number:** N00019-12-C-2002/2  
**Contract Type:** Cost Plus Fixed Fee (CPFF)  
**Award Date:** August 05, 2014  
**Definitization Date:** August 05, 2014

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
43.8	N/A	N/A	43.8	N/A	N/A	43.8	43.8

Contract Variance		
Item	Cost Variance	Schedule Variance
Cumulative Variances To Date (8/23/2015)	+3.1	-3.1
Previous Cumulative Variances	+1.1	-2.1
Net Change	+2.0	-1.0

# Cost and Schedule Variance Explanations

The favorable net change in the cost variance is due to labor efficiencies in the program's supporting efforts.

The unfavorable net change in the schedule variance is due to delays of suppliers' material and release of Phase 2 software as a result of the technical complexity.

# Notes

The Period of Performance for this Contract CLIN expired on September 30, 2015 and therefore ended EVM reporting.

This contract is more than 90% complete; therefore, this is the final report for this contract.

**Contract Identification**

**Appropriation:** RDT&E  
**Contract Name:** AIM-9X Block II Lot 15 Production  
**Contractor:** Raytheon  
**Contractor Location:** 1151 East Hermans Road  
 Tucson, AZ 85756  
**Contract Number:** N00019-15-C-0092  
**Contract Type:** Fixed Price Incentive(Firm Target) (FPIF)  
**Award Date:** March 26, 2015  
**Definitization Date:** March 26, 2015

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
26.0	26.0	0	241.5	246.9	576	241.5	241.5

**Target Price Change Explanation**

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to awarding the final Lot 15 contract for AIM-9X Block II Full Rate Production which includes missiles, containers and spare parts in support of the United States Navy, United States Air Force and several FMS customers.

**Cost and Schedule Variance Explanations**

Cost and Schedule Variance reporting is not required on this (FPIF) contract.

**General Contract Variance Explanation**

Cost and schedule variances are not reported for this contract because an earned value management waiver was granted by the Office of the Assistant Secretary of the Navy (Research, Development and Acquisition) Deputy Assistant of the Navy (Acquisition and Procurement) on May 26, 2015 due to the utilization of other methods (i.e., a Cost and Software Data Reporting requirement) to monitor contract performance. In addition, the contract includes Federal Acquisition Regulation Clause 52.216-16 which requires quarterly limitation on payments reporting by the contractor after the first delivery.

**Notes**

This is the first time this contract is being reported.



**Contract Identification**

**Appropriation:** RDT&E  
**Contract Name:** AIM-9X Block II System Improvement Plan III  
**Contractor:** Raytheon  
**Contractor Location:** 1151 East Hermans Road  
 Tucson, AZ 85756  
**Contract Number:** N00019-15-C-0121/1  
**Contract Type:** Cost Plus Fixed Fee (CPFF)  
**Award Date:** September 25, 2015  
**Definitization Date:** September 25, 2015

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
264.8	N/A	0	264.8	N/A	0	264.8	264.8

Contract Variance		
Item	Cost Variance	Schedule Variance
Cumulative Variances To Date (1/31/2016)	+1.2	-1.8
Previous Cumulative Variances	--	--
Net Change	+1.2	-1.8

**Cost and Schedule Variance Explanations**

The favorable cumulative cost variance is due to a delay in invoicing for performance taken in the Dome efforts, LOE being time-phased earlier than planned and labor efficiencies.

The unfavorable cumulative schedule variance is due to delays in Operational Flight Software (OFS) OFS.9.4 Algorithm and Software development as well as a late start in the Dome efforts.

**Notes**

This is the first time this contract is being reported.

## Deliveries and Expenditures

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	0	0	0	--
Production	915	915	6000	15.25%
Total Program Quantity Delivered	915	915	6000	15.25%

Expended and Appropriated (TY \$M)			
Total Acquisition Cost	4099.5	Years Appropriated	13
Expended to Date	690.6	Percent Years Appropriated	52.00%
Percent Expended	16.85%	Appropriated to Date	1437.9
Total Funding Years	25	Percent Appropriated	35.08%

The above data is current as of February 09, 2016.

## Operating and Support Cost

### Cost Estimate Details

<b>Date of Estimate:</b>	January 11, 2016
<b>Source of Estimate:</b>	POE
<b>Quantity to Sustain:</b>	6000
<b>Unit of Measure:</b>	Total Quantity
<b>Service Life per Unit:</b>	20.00 Years
<b>Fiscal Years in Service:</b>	FY 2014 - FY 2049

The sustaining support consists of systems engineering, program management support, failure analysis, and Surveillance/quality/obsolescence evaluation program. The cost estimate considers a service life stated in the service life letter 8810 dated July 24, 2013 for the All Up Round (AUR) and letter dated September 15, 2010 for the Captive Air Training Missile (CATM). The estimate assumes operational utilization AURs and CATMs as indicated in the following table:

Type	Service	Yearly Qty In-Use	Yearly Flight Hours
CATM	USN	All	310
	USAF	All	297
AUR	USN	188	226
	USAF	225	33

### Sustainment Strategy

The sustainment strategy for the AIM-9X-2 is essentially the same as the previous AIM-9X missile configurations. The key focus areas include maintenance of key performance requirements, decreasing life cycle costs and ensuring asset availability for warfighters. Specific sustainment initiatives include depot maintenance and repairs, sustaining/systems engineering, program management support, failure analysis and ordnance assessment and continuing system improvement, primarily software support. The cost estimate considers a 20-year sustainment period after delivery of the final production lot. The estimate assumes operational utilization of CATMs and AURs based on historical annual average flight hours for each Service's current total inventory of AIM-9X CATMs and AURs.

### Antecedent Information

The AIM-9X Block I is the antecedent system to the AIM-9X Block II. Antecedent costs were derived based on historical data collected via the Visibility and Management of Operating and Support Costs database and estimated through the remainder of the life (FY 2032). A total of 3,097 AIM-9X Block I missiles were procured. The last year of procurement was FY 2010. There is a 20-year service life assumption for the AIM-9X Block I AUR and a 13-year service life assumption for the CATM. The AIM-9X Block I system included a warranty period that accounted for missile repair costs. The AIM-9X Block II system did not include a warranty and was estimated accordingly.

Annual O&S Costs BY2011 \$M			
Cost Element	AIM-9X Blk II Average Annual Cost Per Total Quantity		AIM-9X (Antecedent) Average Annual Cost Per Total Quantity
Unit-Level Manpower	0.000		0.000
Unit Operations	0.000		2.200
Maintenance	11.360		5.300
Sustaining Support	7.470		5.800
Continuing System Improvements	4.870		5.000
Indirect Support	0.000		0.100
Other	0.000		0.000
Total	23.700		18.400

Item	Total O&S Cost \$M			
	AIM-9X Blk II			AIM-9X (Antecedent)
	Current Production APB Objective/Threshold	Current Estimate		
Base Year	826.8	909.5	876.8	531.9
Then Year	1274.0	N/A	1361.8	N/A

The increase in sustainment cost for the AIM-9X Block II missile from the AIM-9X Block I missile is that the sustainment period went from 29 years for Navy only missile sustainment for Block I to 35 years for Block II. This was based on the quantity of 3,097 Navy missiles being sustained for the Block I program versus the remaining 6,000 Navy and Air Force missiles that will be sustained for the Block II program. The other reason for the increase is using a different Mean-Time-Between-Failure (MTBF) to calculate repair costs. The specification MTBF was used for Block II and the actual MTBF was used to calculate the Block I.

The current estimate has increased due FRP decision and the change in the production profile which pushed sustainment out an additional year.

#### Equation to Translate Annual Cost to Total Cost

Average Annual Cost is calculated using the total cost divided by the number of years for sustainment.  
Total Cost \$876.8M divided by 37 years for maintenance equals \$23.7M average annual cost per total quantity.

O&S Cost Variance		
Category	BY 2011 \$M	Change Explanations
Prior SAR Total O&S Estimates - Dec 2014 SAR	770.8	
Programmatic/Planning Factors	50.0	Increase due to adjusted production profile.
Cost Estimating Methodology	0.0	
Cost Data Update	56.0	Increase due to inclusion of initial Block II actuals.
Labor Rate	0.0	

Energy Rate	0.0
Technical Input	0.0
Other	0.0
Total Changes	106.0
Current Estimate	876.8

**Disposal Estimate Details**

**Date of Estimate:**

**Source of Estimate:**

**Disposal/Demilitarization Total Cost (BY 2011 \$M):**

Disposal costs are not identified at this time.